

# EKM1-63 6KA MCB

**ETЭК®**

Mini Circuit Breaker

Standard\_ IEC60898-1

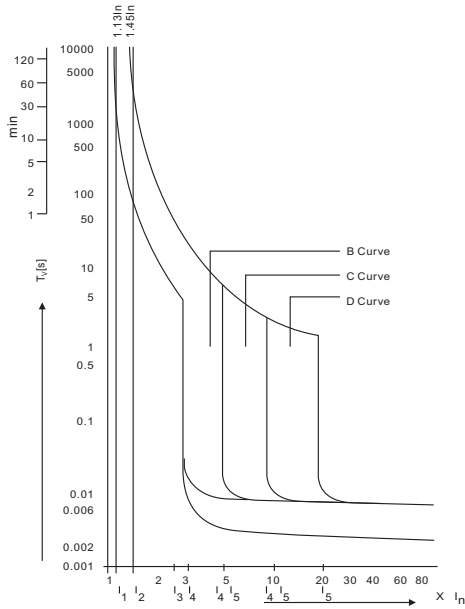


## Technical Data

|  |  |  |
|--|--|--|
| <b>Electrical Features</b>             | Rated current In                                     | 1,2,3,4,5,6,8,10,13,16,20,25,32,40,50,63A              |
|  | Poles  | 1P, 1P+N, 2P, 3P, 3P+N,4P                              |
|  | Rated voltage Ue                                     | 240/415V~  |
|  | Insulation voltage Ui                                | 500V   |
|  | Rated frequency                                      | 50/60Hz  |
|  | Rated breaking capacity                              | 6,000A   |
|  | Energy limiting class                                | 3  |
|  | Rated impulse withstand voltage(1.5/50) Uimp         | 4,000V   |
|  | Dielectric test voltage at ind. Freq. for 1 min      | 2kV  |
|  | Pollution degree                                     | 2  |
| Thermo-magnetic release characteristic | B,C,D  |  |
| <b>Mechanical Features</b>             | Electrical life                                      | 8,000 Cycles   |
|  | Mechanical life                                      | 20,000 Cycles  |
|  | Contact position indicator                           | Yes  |
|  | Protection degree                                    | IP20   |
|  | Reference temperature for setting of thermal element | 30°C   |
|  | Ambient temperature (with daily average ≤35°C)       | -5°C~+40°C   |
|  | Storage temperature                                  | -25°C~+70°C  |
| <b>Installation</b>                    | Terminal connection type                             | Cable/Pin-type busbar/U-type busbar                    |
|  | Terminal size top/bottom for cable                   | 25mm <sup>2</sup> 18-3AWG                              |
|  | Terminal size top/bottom for busbar                  | 25mm <sup>2</sup> 18-3AWG                              |
|  | Tightening torque                                    | 2.5Nm 22In-lbs   |
|  | Mounting   | On DIN rail EN60715(35mm) by means of fast clip device |
|  | Connection   | Power supply in both directions                        |
| <b>Combination with accessories</b>    | Auxiliary contact                                    | EKM1-OF  |
|  | Alarm contact  | EKM1-FB  |
|  | Shunt release  | EKM1-MX  |
|  | Over/Under voltage release                           | EKM1-MV+MN   |

## MCB Characteristics

### Characteristics Curves



| As per IEC60898 | Thermal Tripping    |                        | Magnetic Tripping |                    |                    |               |
|-----------------|---------------------|------------------------|-------------------|--------------------|--------------------|---------------|
|                 | No tripping current | Tripping current $I_2$ | Time Limits t     | Hold current $I_4$ | Trip current $I_5$ | Time Limits t |
| B Curve         | $1.13 \times I_N$   | $1.45 \times I_N$      | $\geq 1h$         | $3 \times I_N$     | $5 \times I_N$     | $\geq 0.1s$   |
|                 |                     |                        | $< 1h$            |                    |                    | $< 0.1s$      |
| C Curve         | $1.13 \times I_N$   | $1.45 \times I_N$      | $\geq 1h$         | $5 \times I_N$     | $10 \times I_N$    | $\geq 0.1s$   |
|                 |                     |                        | $< 1h$            |                    |                    | $< 0.1s$      |
| D Curve         | $1.13 \times I_N$   | $1.45 \times I_N$      | $\geq 1h$         | $10 \times I_N$    | $20 \times I_N$    | $\geq 0.1s$   |
|                 |                     |                        | $< 1h$            |                    |                    | $< 0.1s$      |

### Tripping characteristics

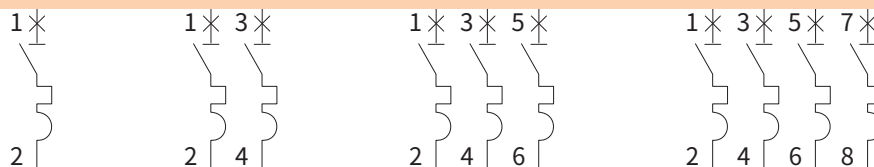
Based on the Tripping Characteristics, MCB are available in “B” , “C” and “D” curve to suit different types of applications.

“B” Curve for protection of electrical circuits with equipment that does not cause surge current (lighting and distribution circuits) Short circuit release is set to (3-5)In.

“C” Curve for protection of electrical circuits with equipment that cause surge current (inductive loads and motor circuits) Short circuit release is set to (5-10)In.

“D” Curve for protection of electrical circuits with cause high inrush current ,typically 12-15 times the thermal rated current (transformes, x-ray machines etc,)Short circuit release is set to (10-20)In.

## Circuit Diagram



## Overall and Installation Dimension(mm)

